SMURFIT-STONE
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VIA ELECTRONIC MAIL

Water Docket
U.S. Environmental Protection Agency
Mail Code 28221T
1200 Pennsylvania Avenue, N.W.
Washington, DC 20460

Re: Comments of Smurfit-Stone Container Corporation on EPA's Draft Chesapeake Bay TMDL for Nutrients and Sediment

EPA Docket ID No.: EPA-R03-OW-2010-0736

Dear Sir or Madam:

Smurfit-Stone Container Corporation ("Smurfit-Stone") is one of the largest manufacturers of paperboard and paper-based packaging in the United States. It is also a global leader in the collection of recycled paper. Smurfit-Stone owns and operates 140 facilities across the country, including two paper mills, nine corrugated container (box) plants, two chip mills and one recycling facility in the Chesapeake Bay watershed states.

Smurfit-Stone's two paper mills are located in Virginia, one of which discharges directly to surface waters under an individual National Pollutant Discharge Elimination System ("NPDES") permit, and a second mill which discharges to a municipal wastewater treatment system. These mills will be affected by the United States Environmental Protection Agency's ("EPA") proposed Chesapeake Bay TMDL establishing effluent loadings for nutrients and sediments (75 Fed. Reg. 57776, September 22, 2010) (the "Proposed TMDL"). As a result of EPA's proposed TMDL, SSCC's mill that discharges directly to a tributary of the Chesapeake Bay would be forced to make extraordinary capital expenditures to reduce the nutrient concentrations in an effluent that is nutrient deficient. Further, there is no proven technology currently in use in the pulp and paper industry that is capable of consistently achieving the nutrient and Total Suspended Solids ("TSS") concentrations that would be required by the Proposed TMDL.

Municipal treatment systems that discharge to the Chesapeake Bay or its tributaries also will likely be forced to require the Smurfit-Stone facilities and other indirect dischargers to make nutrient and TSS reductions or fund expensive capital projects to install additional technology for compliance with EPA's Proposed TMDL. Smurfit-Stone facilities also may be subject to increased sewer rates as municipalities attempt to cover their costs of compliance with the Proposed TMDL. As a result of the foregoing, Smurfit-Stone has a direct and substantial interest in EPA's proposed action to establish TMDL mass loadings for nutrient and sediment contributors into the Chesapeake Bay watersheds.

Smurfit-Stone is a member of the Virginia Manufacturers Association ("VMA"), and company representatives have participated in and contributed to the development of the detailed comments that VMA has submitted to EPA regarding the Proposed TMDL. Smurfit-Stone also is a member of the American Forest & Paper Association ("AF&PA"), which also has submitted comments to EPA on the Proposed TMDL. Smurfit-Stone fully supports the comments made by VMA and AF&PA and is incorporating their comments on the Proposed TMDL by reference. In the following sections of this letter, Smurfit-Stone will supplement the points made by VMA and AF&PA by highlighting several aspects of the Proposed TMDL that will have a specific and significant impact on its operations in Virginia, particularly at its two pulp and paperboard mills in that State.

1. **EPA's Proposed Wasteload Allocation For Sediments Is Neither Necessary Or Appropriate For Industrial and Many Municipal Facilities.**

   EPA indicates in the executive summary of the draft Chesapeake Bay TMDL that Virginia "does meet allocations for sediment (12 percent under)." This statement is based on the EPA review of the Virginia Watershed Implementation Plan ("WIP"). Nevertheless, EPA proposes a further tightening of the TSS limits for all dischargers to an equivalent effluent concentration of 5 mg/L. This level of effluent TSS concentration for industrial dischargers and for many municipal facilities, especially those that receive a high proportion of industrial wastewater, is extremely difficult if not impossible to meet given the typical solids composition in these wastewaters. This is certainly true for pulp and paper mill effluents. This fact is reflected in the higher TSS limits that are allowed by the New Source Performance Standards ("NSPS") for certain industrial categories. For example, a paper mill producing 3,000 tons per day of paperboard from wastepaper is allowed under 40 CFR Part 430, Subpart J to discharge 13,800 pounds of TSS per day on a 30-day average. This equates to an effluent concentration of 87 mg/L at a discharge flow rate of 19 mgd. These are technology-based effluent limits for new sources which represents a high degree of treatment. These effluent TSS numbers are indicative of the practical limitations in removing TSS from the highly treated effluents discharged by pulp and paper mills.

   EPA states in the Proposed TMDL (Section 4.5.2) that wastewater discharges from industrial wastewater facilities "do not represent a significant source of sediment (i.e. less than 0.5 percent of the 2009 total sediment load)." Given this acknowledgement and the fact that the proposed TSS levels in the Virginia WIP are acknowledged by EPA to be 12 percent under the proposed loading target/goal, the proposed significant tightening of effluent TSS in industrial discharges is perplexing and totally unwarranted. If the TMDL is finalized as proposed, it would result in the expenditure of millions of dollars by industrial dischargers with no assurance of meeting the artificially low standard proposed and with little or no benefit to the Bay.

   The impact of this approach on point sources will result in huge economic implications for a *de minimis* source that has no chance of impacting the desired overall result. It is imperative that EPA re-consider their sediment control proposal.

2. **Inorganic Forms Of Nitrogen and Phosphorus, Like Those In Effluent From Smurfit-Stone's Virginia Mills, Are Not Readily Bioavailable:**

Soluble inorganic forms of nitrogen ("N") and phosphorous ("P") have a more direct link to the growth of aquatic plants because they are generally more bio-available than organic and particulate forms of N and P, which comprise a large and often majority fraction of the Total Nitrogen and Total Phosphorus in many flowing waters. Studies demonstrate that only bio-available forms of N and P contribute to aquatic plant growth that can cause impairments. This is an important consideration for pulp and paper mill effluents.

Unlike municipal effluent, most of the nitrogen in pulp and paper mill effluents is tied up in organic compounds. Based on a study by the National Council on Air and Stream Improvement (NCASI) of nitrogen in pulp and paper mill effluents, approximately 59 percent of the organic nitrogen in effluent generated by these mills is considered refractory (i.e., it degrades to inorganic forms at a rate that is an order of magnitude slower than the labile rate). As such, the nitrogen in pulp and paper mill effluents is not readily bio-available and, thus, does not impact the ability of receiving waters to achieve their designated uses. In the Proposed TMDL, EPA has failed to distinguish between forms of nitrogen and phosphorus, and has not accounted for the fact that inorganic forms of these nutrients are not readily bio-available when discharged in pulp and paper mill effluents.

3. **The Pulp and Paper Industry's Effluents Generally are Compatible with Receiving Water Ecosystems.**

In the mid- 1990s, NCASI initiated multi-year studies to assess the effects of pulp mill effluent discharges on receiving water aquatic communities. This study, conducted in receiving waters in multiple eco-regions (including Codorus Creek that ultimately feeds into the Chesapeake Bay), system types (warm- or coldwater), in stream effluent concentration gradients, and mill process types (bleached vs. unbleached kraft) provide important information on potential short-term and long-term effluent-related patterns. Samples are taken from upstream and downstream sites, including nutrients samples. In addition to habitat assessments and effluent chemical and biological analyses, samples are collected for fish, macro-invertebrates, and periphyton. Population level parameters are assessed.

Results show that at all sites there are either (a) no differences at the population level of samples collected upstream or downstream from the mill discharges, or (b) where there are differences, these are due to stressors other than those associated with the effluent discharges (e.g., habitat differences). The results of the study do show the general overall compatibility of modern pulp mill effluents with healthy aquatic ecosystems in receiving waters. Recently, eight manuscripts describing the first eight years of data have been published in a peer reviewed journal.

4. Apply Wasteload Reductions Across All Discharges So That Point Source Facilities Are Not Disproportionately Impacted

To achieve the necessary reductions required by the Proposed TMDL it is unfair and punitive for EPA to focus solely on permitted dischargers. EPA acknowledges this approach in the Executive Summary of the draft TMDL where they state "For the most part in making the hybrid allocations, EPA decreased the allocations to the point sources (over which EPA has or could assert regulatory control) and increased the load allocations to unregulated nonpoint sources." Continuing to ratchet down the loadings from point sources without a comparable reduction in other sources will result in huge capital and operational costs without being able to achieve the ultimate goal for the Bay.

In conclusion, Smurfit-Stone recommends that EPA modify the Proposed TMDL to address the significant issues raised by the company, VMA and AF&PA, and prevent unintended consequences by:

- Eliminating the proposed effluent TSS loadings and revert to the existing permitted levels. The existing industrial TSS levels comprise less than 0.5 percent of the total load going to the Bay and downward adjustments to these existing levels will result in significant expense with little or no benefit;

- Allowing the Commonwealth of Virginia to implement its WIP as it proposed (based on significant stakeholder involvement and commitment) and not implement the arbitrary backstop provisions proposed by EPA;

- Taking into consideration the bioavailability of the nutrients in general and in particular those associated with pulp and paper effluents;

- Taking into account limits of available technology to achieve the nutrient and TSS reductions required by the TMDL on a consistent basis;

- Applying the nutrient and sediment load reductions across all contributors so that an equitable distribution of costs can be achieved and the stated goals for the Bay can be accomplished.

- Addressing Municipal treatment systems that receive a significant proportion of industrial wastewater in a different manner than other municipal treatment facilities in recognition of the difficulties of treating many industrial wastewaters.

Smurfit-Stone appreciates the opportunity to provide comments on this critical TMDL. If you have any questions, please contact me at 770-570-1609.

Sincerely,

Nina E. Butler
VP & Senior Environmental Counsel